

Sentiment Analysis on Social Media :

TEAM BASED PROJECT

Introduction

The rapid growth of social media platforms has generated massive amounts of user-generated content. This project focuses on analyzing social media text to identify public sentiment and trends using Natural Language Processing (NLP) techniques.

Objective

- To classify social media posts into **positive, negative, or neutral** sentiments.
- To analyze trending topics based on user opinions.
- To visualize sentiment distribution.

Technologies Used

- Python
- AWS Comprehend
- Amazon S3
- Amazon Glue
- Amazon Athena
- Pandas, Matplotlib
- NLP techniques

Methodology

1. Data Collection

- Social media text data collected from datasets/APIs.

2. Data Storage

- Stored raw data in Amazon S3.

3. Data Processing

- Used AWS Glue for ETL (Extract, Transform, Load).

4. Sentiment Detection

- Applied AWS Comprehend to classify sentiments.

5. Analysis

- Used Amazon Athena to query processed data.

6. Visualization

- Generated charts showing sentiment trends.

Features

- Automated sentiment classification.
- Real-time trend analysis.
- Visual dashboards.

Conclusion

The system successfully analyzed social media data and provided insights into public opinion. This project demonstrates the effectiveness of cloud-based NLP tools for large-scale sentiment analysis.